Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KENJI MATSUURA
and KATSUMI TORITANI

Appeal No. 95-4455
Application 07/967,500[1]

HEARD: May 9, 1996

Before FRANKFORT and McQUADE, Administrative Patent Judges, and CRAWFORD, Acting Administrative Patent Judge.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 3 through 9 as amended subsequent to the final rejection in a paper filed August 1, 1994 (Paper No. 14).

[1] Application for patent filed October 28, 1992.

Claims 3 through 9 are all of the claims remaining in this application. Claims 1 and 2 have been canceled.

Appellants' invention relates to a system and apparatus for cleaning the inside surface of a pipe or duct. Claim 3 is representative of the subject matter on appeal and a copy of that claim, as it appears in the Appendix to appellants' brief, is attached to this decision.

The prior art references of record relied upon by the examiner in rejecting the appealed claims under 35 U.S.C. 103 are:

Stanley	3,004,278	Oct. 17, 1961
Cook et al. (Cook)	3,267,504	Aug. 23, 1966
Walton	5,020,188	Jun. 4, 1991

Claims 3, 5 and 8 stand rejected under 35 U.S.C. 103 as being unpatentable over Cook in view of Stanley.

Claims 4, 6, 7 and 9 stand rejected under 35 U.S.C. 103 as being unpatentable over Cook in view of Stanley as applied to claim 3 above, and further in view of Walton.

Reference is made to the examiner's answer (Paper No. 18, mailed December 1, 1994) for the examiner's complete reasoning in support of the above-noted rejections. Appellants' arguments thereagainst are found in the brief (Paper No. 17, filed October 24, 1994) and in the reply brief (Paper No. 19, filed January 23, 1995).

OPINION

In reaching our conclusion on the obviousness issues raised in this appeal, we have carefully considered appellants' specification and claims, the applied prior art, and the respective viewpoints advanced by appellants and the examiner. As a consequence of our review, we have made the determination that the examiner's rejection of the appealed claims under 35 U.S.C. 103 cannot be sustained. Our reasons follow.

In determining the propriety of a rejection under 35 U.S.C. 103, it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins and Refractories, Inc., 776 F.2d 281, 297, 227 USPQ 657,

667 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The law followed by our court of review, and thus by this Board, is that "[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). See also In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984). If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. See In re Fine, 837 F.2d 1071, 1076, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

Appellants' claim 3 on appeal defines a system and apparatus for cleaning the inside surface of a duct or pipe (1), which arrangement comprises: a traveling means (11); a driving means (24, 33, 12) for driving the traveling means forwardly and backwardly in the interior space of the duct to be cleaned; a rotating duct-cleaning means (30) secured to a forwardly extending rotatable shaft (26), the duct-cleaning means including compressed air ejection holes (113) and brush bristle bundles (301) associated therewith; an electric motor (27) for rotating the duct-cleaning means; an air compressor (8) for supplying compressed air to the ejection holes (113), and a control valve

(29) for controlling said air flow. In addition to the foregoing, the system and apparatus claimed by appellants also includes

> "a remote electronic circuit connected to said electric motor, said control valve and said driving means for controlling said driving means, said electric motor means and said control valve, and
>
> a remote control means for remotely controlling said remote electronic circuit.

As explained on page 3 of appellants' brief and as set forth in appellants' specification (page 6), the remote control means (5), seen in Figures 1 and 2, under direction from the human operator, sends out operating signals (18) via a radio wave (19) to the remote electronic circuit (6, 7) located outside the duct, which in-turn sends signals via antenna line (9) to a control substrate (21) located on the traveling means (11) in the duct. Thus, appellants' system has a remote control means (5) carried by the operator that remotely controls separate electronic circuitry (6, 7) located outside the duct and which circuitry in-turn remotely controls the traveling means in the duct.

Although acknowledging that both Cook (column 1, lines 54-55) and Stanley (column 5, lines 22-24) disclose remote control of their pipe cleaning apparatus, appellants argue that such remote

control is akin to that provided by their remote electronic circuit (6, 7) located outside the duct/pipe and that neither of these references, nor Walton, teaches or suggests the additional remote control means set forth in claim 3 on appeal which controls the remote electronic circuitry. In their reply brief, appellants again argue that they fail to find in the teachings of the references applied by the examiner a remote control means that controls a remote electronic circuit that controls the controllable parts of the traveling means in the duct.

After carefully reviewing the disclosures and teachings of Cook, Stanley and Walton, we must agree with appellants' assessment that these patents provide no teaching or suggestion of the additional remote control means required in appellants' claim 3 on appeal. Although each of the applied patents apparently has some form of control station located outside the duct for controlling the duct cleaning apparatus located within the duct, none of these patents even hints at an additional remote control means that is used by the operator from a remote location to control the signals sent from the control station outside the duct to the equipment inside the duct. Like appellants, we note that it does not appear that the examiner has fully understood, nor addressed, the recited remote control means for remotely controlling the remote electronic circuit of the claimed system. Lacking any teachings in the prior art itself which would

appear to have suggested the claimed subject matter to a person of ordinary skill in the art, or any line of reasoning from the examiner as to why such artisan would have otherwise found the claimed subject matter to have been obvious in light of the teachings of the references, we must refuse to sustain the examiner's rejections of claims 3 through 9 on appeal under 35 U.S.C. 103.

The decision of the examiner rejecting claims 3, 5 and 8 under 35 U.S.C. 103 based on Cook in view of Stanley and claims 4, 6, 7 and 9 based on the combination of Cook, Stanley and Walton is, accordingly, reversed.

REVERSED

Charles E. Frankfort

CHARLES E. FRANKFORT)
Administrative Patent Judge)

JOHN P. McQUADE)
Administrative Patent Judge) BOARD OF PATENT APPEALS AND INTERFERENCES

MURRIEL E. CRAWFORD, Acting)
Administrative Patent Judge)

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APPENDIX

3. A system and apparatus for cleaning inside surfaces of a duct, comprising:

a traveling means having a longitudinal axis;

a driving means for driving said traveling means forwardly and backwardly in an interior of the duct to be cleaned;

a rotating duct-cleaning head secured to a forwardly extending rotatable shaft, said duct-cleaning head having compressed air ejection throughholes that pass therethrough and brush bristles that extend radially therefrom, said rotating duct-cleaning head being supported at a forward end of said rotatable shaft and rotatable about said longitudinal axis, rotatably fixed to said traveling means and directed in a forward travel direction of said traveling means;

an electric motor means for rotating said rotating duct-cleaning head via said rotatable shaft;

an air compressor for supplying compressed air to said compressed-air ejection throughholes;

a control valve for controlling air flow through said rotating duct-cleaning head;

a remote electronic circuit connected to said electric motor, said control valve and said driving means for controlling said driving means, said electric motor means and said control valve, and

a remote control means for remotely controlling said remote electronic circuit.